

AF/1772
JPC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Christophe LE ROY et al.

Serial No.: 09/777,012

Examiner: Marc A. Patterson

Filed: February 6, 2001

Group Art Unit: 1772

Title: MULTILAYER STRUCTURE AND TANK CONSISTING OF THIS
STRUCTURE, WHICH HAS A BARRIER LAYER IN DIRECT CONTACT
WITH THE FLUID CONTAINED

REPLY BRIEF UNDER 37 C.F.R. §41.41

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Commissioner for Patents

P.O. Box 1450

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SIR:

This Reply Brief is submitted under 37 C.F.R. §41.41 in response to the Examiner's Answer, mailed November 4, 2004. Appellants maintain their reliance upon their Brief filed August 20, 2004. The following points are made for emphasis or clarification of points made in the Brief in light of the comments thereon in the Examiner's Answer and/or are made in response to new points of argument raised in the Examiner's Answer.

1. Appellants acknowledge the indication in the Examiner's Answer (page 3) that claims 23 and 38, on appeal, are allowable, presumably if they are re-written in independent form.
2. The Examiner's Answer (e.g., pages 13-14) relies, as a primary basis for the rejections, on teachings from Beuzelin and Hughes regarding binder layers to meet the "third layer" element of the claims on appeal. Appellants emphasize their position that one of ordinary skill in the art – in view of Beuzelin itself and in view of appellants' disclosure – would not consider that a binder layer could meet or suggest the "third layer" element of the claims on appeal. Appellants understand the position

taken in the Examiner's Answer that, the term "third layer," when considered in a vacuum, does not exclude a binder layer. But, when properly viewed in light of appellants' disclosure and the art of record, it would have been clear to one of ordinary skill in the art that the "third layer" term defines a layer distinct from a binder layer.

3. The Examiner's Answer (e.g., page 15, first full paragraph; and page 16, first full paragraph) alleges that the teaching in Hughes that other polymers can be mixed with the polyethylene for the production of extruded shaped articles is also applicable to the teachings in Hughes relating to binder layers because the binder layers in Hughes are also extruded. But Hughes clearly distinguishes between extruded articles and extruded binder layers. The statement in the Examiner's Answer (page 16, first full paragraph) that "an adhesive film, which is clearly an extruded article" is not supported by the reference teachings. Hughes refers to the adhesive films (i.e., binder layers) as being distinguished from shaped articles. They are discussed separately and the options for preparing and using them are different. Particularly, Hughes mentions the addition of polymers other than polyethylene only for extruded article embodiments and makes no such suggestion for including other polymers in its binder layer embodiments.
4. It is argued in the Examiner's Answer (e.g., see page 15, second and third full paragraphs; and page 19, second and third full paragraphs) that it is not clear what is meant by the term "principally based" on a polystyrene component when describing Beuzelin's binders. Appellants respectfully point out that the term "principally based" on a polystyrene component does not appear in Beuzelin. However, at the least, it should be evident from Beuzelin that its binders must be compatible with a polystyrene layer. The only required component of the Beuzelin binders is a polystyrene component (see the polymer (A) definition at pages 3-4 of Beuzelin) and the main objective of Beuzelin is to provide polystyrene containers (see page 1 of Beuzelin). Therefore, the fact that Hughes provides no suggestion that its polyethylene, as an adhesive layer, would be compatible with a polystyrene layer, adds to the convincing evidence that one of ordinary skill in the art would not have

combined the Hughes and Beuzelin teachings in the manner alleged to support the rejections on appeal here.

5. At page 17, first full paragraph, the Examiner's Answer appears to admit the very failure of the prior art argued by appellants regarding claim 32, on appeal. The Examiner's Answer states that "a 'C2' grafted polymer and a 'C2' non-grafted polymer are not taught by Beuzelin." Compare the language of claim 32 wherein the third layer contains (together with a polyethylene) a component (ii) which is a "C2" polymer which is grafted and a component (iii) which is a "C'2" polymer, which is defined the same as the "C2" polymer, but which is not grafted. The statement in the Examiner's Answer would appear to admit that claim 32 is distinguished from the prior art.
6. At page 17, third full paragraph, to the paragraph bridging pages 17-18; and at page 19, first full paragraph, of the Examiner's Answer it is argued that, because Beuzelin suggests use in its binder of a co-graft of polystyrene and "at least one" ethylene copolymer, it suggests three component co-grafts of polystyrene, polyethylene and another ethylene copolymer because there can be more than one ethylene polymer. But, a polystyrene-polyethylene-ethylene copolymer three component co-graft, even with two types of ethylene component, is not the same and does not suggest a polyethylene-ethylene copolymer two component cograft, such as recited in claim 31, on appeal. The additional polystyrene component required by Beuzelin distinguishes it from the cografts used according to the invention. This is not an issue of an additional component allowed by "comprising" language. A cograft is a unitary entity and a co-graft obtaining using polystyrene is distinct from one that is not prepared with a polystyrene.
7. The Examiner's Answer (page 18, 4th full paragraph) improperly shifts the burden to appellants to show unexpected results. The burden lies with the PTO to show that the prior art suggests adding two binder layers on top of each other and that burden is not met on the record here. Nothing in the art of record suggests the desirability of having redundant binder layers.

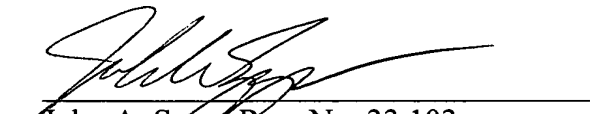
8. At page 19, second and third full paragraph, of the Examiner's Answer, it is argued that one of ordinary skill in the art would be motivated to use the teachings of adhesive layers of Hughes in the Beuzelin binders because Hughes teaches the layers are useful for binding EVOH layers. Appellants respectfully submit that one of ordinary skill in the art would only be motivated to use a binder layer where it is compatible and useful for binding both layers which are to be bound together. All of the layer constructs of Beuzelin (see, e.g., page 13) contain a polystyrene layer (polystyrene is the sole constant theme of Beuzelin). Thus, one of ordinary skill in the art would only be motivated to use a binder in Beuzelin which was reasonably expected to be useful for binding polystyrene layers; in addition to the other layers being bound. Nothing in Hughes suggests that its adhesive layers have any compatibility or applicability for binding polystyrene layers. Thus, in addition to the other reasons already argued, further basis is apparent why there is no motivation to one of ordinary skill in the art to combine Hughes and Beuzelin.
9. At pages 20-21 of the Examiner's Answer, it is argued that one of ordinary skill in the art would have routinely optimized the amounts of polyamide and polyolefin (allegedly suggested by combining Beuzelin and Hughes) to provide appellants' third layer as claimed in claims 43 and 44, on appeal, because it would have been routine to optimize the amounts for the purpose of providing resistance to separation of layers. But there is no suggestion that optimizing for this purpose would meet the recitations of the claims on appeal. Particularly, this is the case since appellants' third layer is not a binder layer and is provided for a purpose different from providing resistance to separation of layers.
10. No support, whatsoever, is provided for the new allegation in the Examiner's Answer (page 21, third full paragraph) that the teaching of polyamide 6,6 (or Nylon 6,6) in Hughes "therefore teach the use of copolymers comprising polyamide 6,6 with caprolactam." The reference has no teaching at all of caprolactam copolymers.

11. At page 23, fourth paragraph, the Examiner's Answer incorrectly states that "Beuzelin et al are directed to films comprising polyamide." The Examiner's Answer makes clear elsewhere that Beuzelin does not have the polyamide component in its binder.
12. The Examiner applies only part of the preferred examining practice recited in MPEP § 2111.03 (see page 24 of the Answer). Although not binding on the Board, the MPEP says that appellants have the burden of showing that an additional element would materially change the basic and novel characteristics of the invention. But this MPEP section also makes clear that the showing can be evidenced by appellants' disclosure and by the knowledge in the art. Thus, it is not a requirement that appellants provide a separate showing, e.g., by 37 C.F.R. §1.132 Declaration. Appellants' Brief sets forth the basis for their showing that a significant polystyrene component, as required by Beuzelin, would materially affect the basic and novel characteristics of the invention and is thus excluded by the "consisting essentially of" language of claim 49, on appeal. Appellants own disclosure and Beuzelin itself evidence that the Beuzelin materials with a principle polystyrene component have basic and novel characteristics quite distinct from the materials of the claimed invention (e.g., the utilities are very different: polystyrene cups in Beuzelin vs. containers for petrol which have barrier properties in the claimed invention).
13. Appellants submit that the Examiner's Answer (in its entirety, for example, at page 16, second and third full paragraphs; and page 18, first and second full paragraphs) does not effectively address appellants' argument that there is no direction from the reference teachings to pick and choose specific pieces from the broad teachings of the prior art to re-construct the claimed invention. For the reasons stated in the Brief, appellants do not believe that the references even disclose the pieces necessary to re-construct the claimed invention. But, even if they did, the only motivation for picking out the obscure teachings from the prior art and piecing them together in the manner suggested for supporting the rejection improperly comes from the use of appellants own teachings as a blue print for such re-construction.

For the above reasons and the reasons set forth in Appellants' Brief, it is submitted that the decision of the Examiner finally rejecting claims 21, 22, 24-32, 35-37 and 39-49, on appeal, is in error and should be reversed.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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